United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Idaho
Basin Outlook Report
March 1, 1996

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office
or
Natural Resources Conservation Service
Snow Surveys
3244 Elder Street, Room 124
Boise, ID 83705-4711
(208) 378-5740

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

IDAHO WATER SUPPLY OUTLOOK REPORT

MARCH 1, 1996

SUMMARY

Heavy snowfall followed by warm rains produced widespread flooding in northern Idaho during February. In the aftermath of the flooding, President Clinton made a disaster declaration for ten northern Idaho counties. NRCS crews are busy conducting damage survey assessments in the hard hit areas in preparation for Emergency Watershed Protection (EWP) program assistance. Even though snowpacks in the north Idaho are somewhat below normal, spring runoff could still pose a threat to structures and property already impaired by the February floods. Elsewhere in the state, snowpack conditions are near to well above normal. Streamflow forecasts mirror the snowpack conditions and call for slightly below normal runoff for most of the Panhandle. With few exceptions, the rest of the state can expect average runoff or better. The combination of deep snowpacks and abundant reservoir storage is resulting in flood control releases from many reservoirs throughout the state.

SNOWPACK

Rain and warm temperatures melted much of the low elevation snowpack during February. However, the higher elevation snowpacks continued to increase throughout the state. Currently, high elevation snowpacks are slightly below normal in the Panhandle region and above average in the rest of the state. Low elevation snowpacks are below normal statewide. The headwaters of the Snake River in western Wyoming have the highest snowpack in the region (130% of average) with some stations in Yellowstone National Park reporting a new maximum water content for March 1.

PRECIPITATION

Sub-freezing temperatures in early February gave way to rain and warm temperatures by the second week of the month. This melted much of the low elevation snowpack throughout the state, producing flooding and near record streamflow peaks in northern Idaho. Many low elevation weather stations in the Panhandle region and Clearwater basin exceeded their normal February precipitation totals during the 5-day period February 5-9. Some northern stations are setting new records for the total precipitation that has fallen so far this water year. February precipitation amounts were well above normal (160-180% of average) in northern Idaho, above normal in the central mountains (140-150%), and near normal in southern and eastern Idaho. Water year to date precipitation is above normal throughout the state. Central, southern, and eastern Idaho reports 110 - 130% of normal precipitation since October 1, with higher values reported in the North. The Panhandle region, focus of the February flooding, has received 150% of average precipitation so far this water year.

RESERVOIRS

Most reservoirs in the state are currently releasing water to make space for the heavy runoff expected this spring. All major reservoir systems with the exception of Bear Lake are reporting above average storage. Bear Lake is currently only 43% of capacity, the result of a long string of drought years yet to be overcome. Reservoirs in the Payette system are 78% of capacity; the Boise system is reporting 67% of capacity. The upper Snake reservoir system is 119% of average (86% of capacity). Flood control releases are expected to continue on the Boise and Snake systems well into the spring. During the February flood event in north Idaho, Coeur d'Alene Lake rose to approximately 603,800 acre-feet -- its highest level since 1974. Reservoir operations will require a delicate balancing act this spring to maintain adequate space in the reservoirs until the seasonal streamflow peaks occur.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

February streamflows were above average across the state with northern Idaho streams flowing near their record levels. The North Fork Clearwater produced more than four times its normal February volume. Streamflow forecasts for the summer months call for 100-140% of average throughout central, southern and eastern Idaho. In the Panhandle region, where rain melted the lower elevation snowpack, forecasts call for 83 and 96% of average runoff, respectively, for the Coeur d'Alene and St. Joe rivers, with above average runoff expected for the Kootenai, Pend Oreille, and Priest. Water supplies should be more than adequate in most drainage basins this year. With above average snowpacks across most of the state, the potential for high streamflows exists. Spring temperatures and precipitation will determine the timing and magnitude of streamflow peaks this year.

RECREATION OUTLOOK

Deep snowpacks across the state provided an excellent season for winter sports activities and the outlook is good for water based recreation this summer as well. The entire state, except the Panhandle region, is reporting a normal or better snowpack. Summer streamflow forecasts mirror the snowpack figures and call for 100-140% of average runoff for most streams. The snowpack in the Panhandle is 85% of average and will yield streamflows in the 80-90% of average range. The boating season in the desert southwest rivers looks promising; the snowpack in the Owyhee, Bruneau and Jarbidge basins ranges from 110-120% of average. Flood control releases are being made from many reservoirs; this will keep streams higher than usual for this time of year. With high inflows expected, reservoirs should remain full well into the summer, promising a multitude of lake based recreation activities.

WATER SUPPLY FORECASTING PRODUCTS ON THE INTERNET

On February 1, the Water and Climate Center (WCC) began providing Snow Survey and Water Supply Forecasting products on the INTERNET. A few of our more popular products (SNOTEL Update Reports, State Basin Outlook Reports, and products previously published in the Water Supply Outlook for the Western United States) are now accessible via our new Home Page and our Anonymous FTP server.

The Universal Resource Locator (URL) for the home page is: http://www.wcc.nrcs.usda.gov/
The address for the Anonymous FTP server is: ftp.wcc.nrcs.usda.gov
You can access the Anonymous FTP server using your INTERNET browser (Netscape, Mosaic, etc.) by changing the URL to: ftp://ftp.wcc.nrcs.usda.gov/

We will continue to add more products to the Home Page and Anonymous FTP server and welcome any comments and suggestions you might have. Questions and comments should be directed to the NRCS Snow Survey and Water Supply Forecasting contact in your state or:

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Water and Climate Center
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IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of March 1, 1996

The surface water supply index (swsi) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

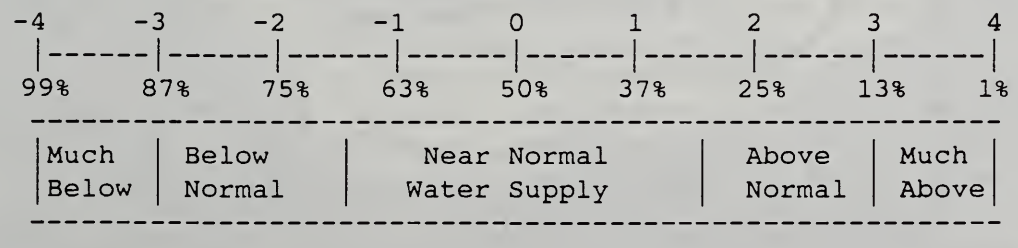
SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service
US Bureau of Reclamation
Idaho Water Users Association
US Army Corps of Engineers
Idaho Department of Water Recourses
PacifiCorp

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage Ma Occur When SWSI i Less Than*
PANHANDLE	-1.7	1983	NA
CLEARWATER	1.8	1993	NA
SALMON	2.6	1978	NA
WEISER	1.7	1978	NA
PAYETTE	3.1	1983	NA
BOISE	1.6	1970	-2.6
BIG WOOD	0.9	1970	-1.4
LITTLE WOOD	0.9	1993	-2.1
BIG LOST	1.0	1980	-0.8
LITTLE LOST	2.1	1972	0.0
HENRYS FORK	1.3	1965	-3.3
SNAKE (AMERICAN FALLS)	3.0	1982	-2.0
OAKLEY	1.2	1977	0.0
SALMON FALLS	2.1	1962	0.0
BRUNEAU	2.5	1986	NA
OWYHEE	+0.9		NA
BEAR RIVER	-2.5	1989	-3.8

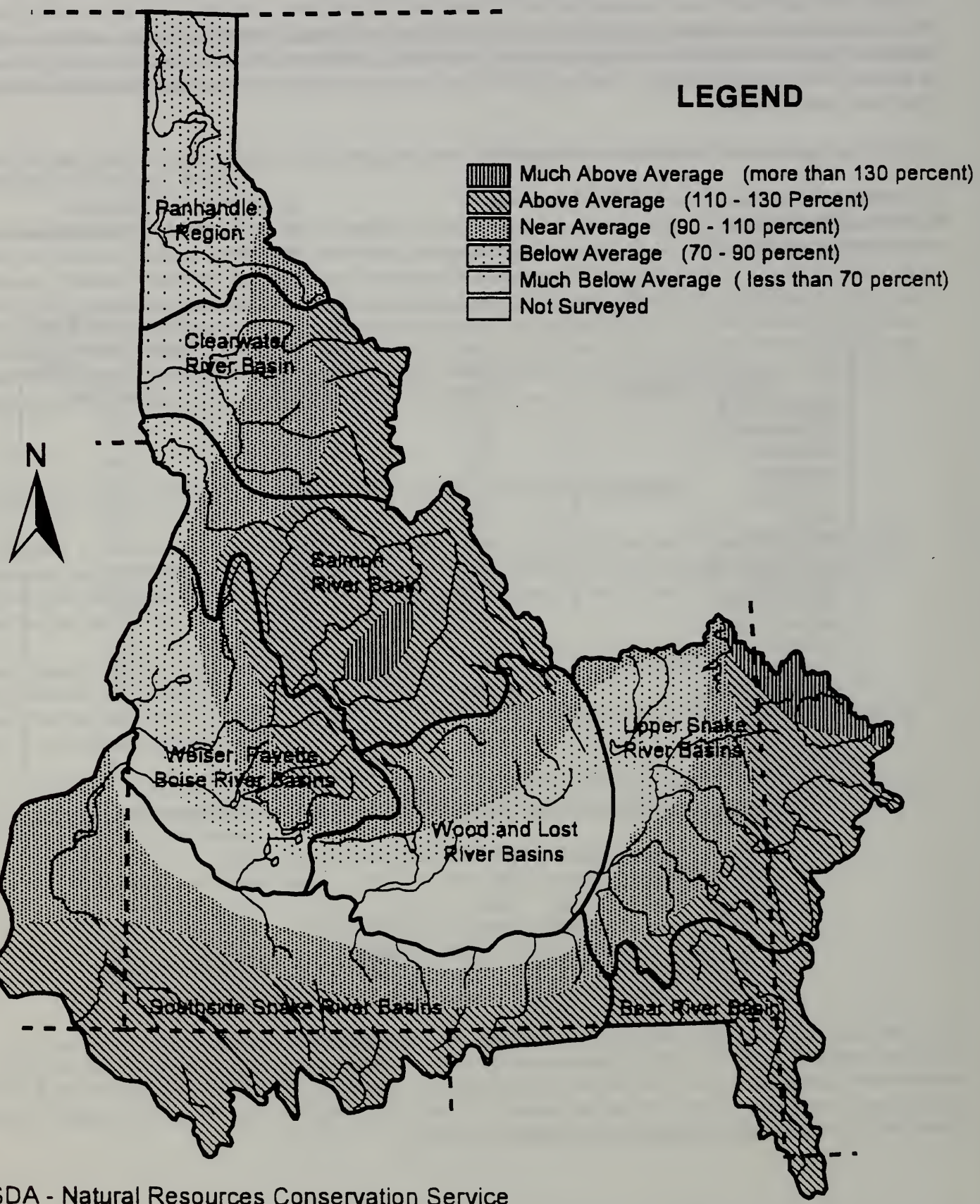
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

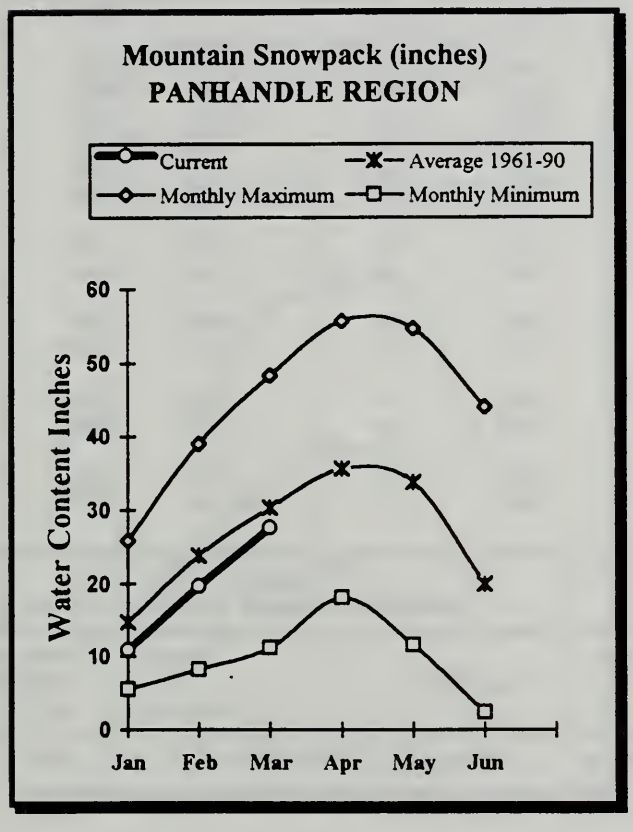
Idaho Mountain Snowpack

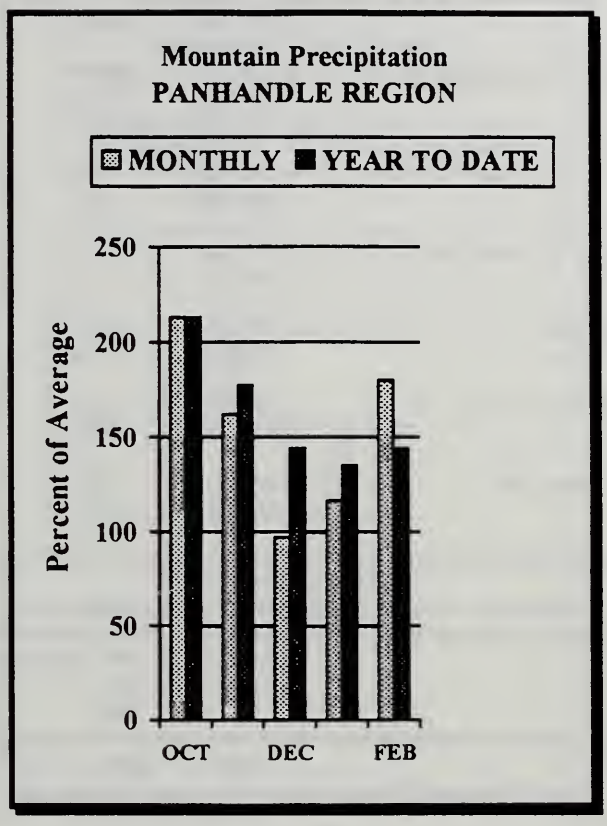
March 1, 1996



USDA - Natural Resources Conservation Service

PANHANDLE REGION
MARCH 1, 1996





WATER SUPPLY OUTLOOK

After sub-zero temperatures in early February, warm temperatures and rain combined to produce flooding throughout northern Idaho. Heavy rainfall during the period February 5-9 melted much of the low elevation snowpack, but snow continued to fall at the higher elevations. Many National Weather Service stations exceeded their normal February monthly totals during this 5-day period. Mountain precipitation (as reported by the SNOTEL network) was 180% of average in the Panhandle during February, bringing the total to 144% for the water year. Bear Mountain SNOTEL site has received 83.8 inches of precipitation so far this water year (160% of average); this is the highest seasonal total since the station was installed in 1982. Currently, the snowpack is 76% of average in the Coeur d'Alene basin and 96% in the St. Joe basin. Storage in Coeur d'Alene Lake reached 603,800 acre-feet on February 12, the highest since 1974. Currently, Coeur d'Alene Lake is 123% of its normal summer level. Summer streamflow forecasts for the Coeur d'Alene River decreased from last month as a result of low elevation snowmelt and now call for 84% of average runoff. Forecasts for the St. Joe River still call for near average runoff this spring. The potential for high flows still exists for many north Idaho rivers when the snow starts to melt. Residents should be prepared for another bout of high water this spring when warm temperatures arrive.

PANHANDLE REGION

Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUN	5635	6464	6840	120	7216	8045	5701
	APR-JUL	7162	8192	8660	120	9128	10158	7199
	APR-SEP	8226	9412	9950	120	10488	11674	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUN	9045		11460	114		14190	10050
	APR-JUL	10440		13400	114		16187	11730
	APR-SEP	11490		14700	114		17816	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	10098	12094	13000	114	13906	15902	11390
	APR-JUL	11925	14040	15000	114	15960	18075	13150
	APR-SEP	13037	15350	16400	114	17450	19763	14370
PRIEST nr Priest River (1,2)	APR-JUL	633	782	850	104	918	1067	814
	APR-SEP	674	833	905	104	977	1136	868
COEUR D'ALENE at Enaville	APR-JUL	471	578	650	84	722	829	770
	APR-SEP	291	596	670	83	744	1068	809
ST.JOE at Calder	APR-JUL	911	1035	1120	96	1205	1329	1169
	APR-SEP	974	1103	1190	96	1277	1406	1237
SPOKANE near Post Falls (2)	APR-JUL	1818	2164	2400	91	2636	2982	2633
	APR-SEP	1897	2250	2490	91	2730	3083	2730
SPOKANE at Long Lake	APR-JUL	2050	2419	2670	91	2921	3290	2936
	APR-SEP	2227	2610	2870	91	3130	3513	3159

PANHANDLE REGION

Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2635.0	1721.0	2205.0
FLATHEAD LAKE	1791.0	1354.0	749.2	881.0
NOXON RAPIDS	335.0	324.0	321.2	298.1
PEND OREILLE	1561.3	1098.0	1070.6	831.8
COEUR D'ALENE	238.5	293.5	348.5	149.1
PRIEST LAKE	119.3	75.0	72.0	54.1

PANHANDLE REGION

Watershed Snowpack Analysis - March 1, 1996

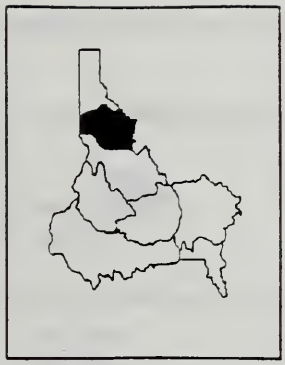
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	33	125	110
Moyie River	3	136	104
Priest River	4	82	75
Pend Oreille River	97	128	104
Rathdrum Creek	4	45	44
Hayden Lake	2	29	23
Coeur d'Alene River	9	99	74
St. Joe River	3	112	93
Spokane River	17	85	69
Palouse River	2	83	66

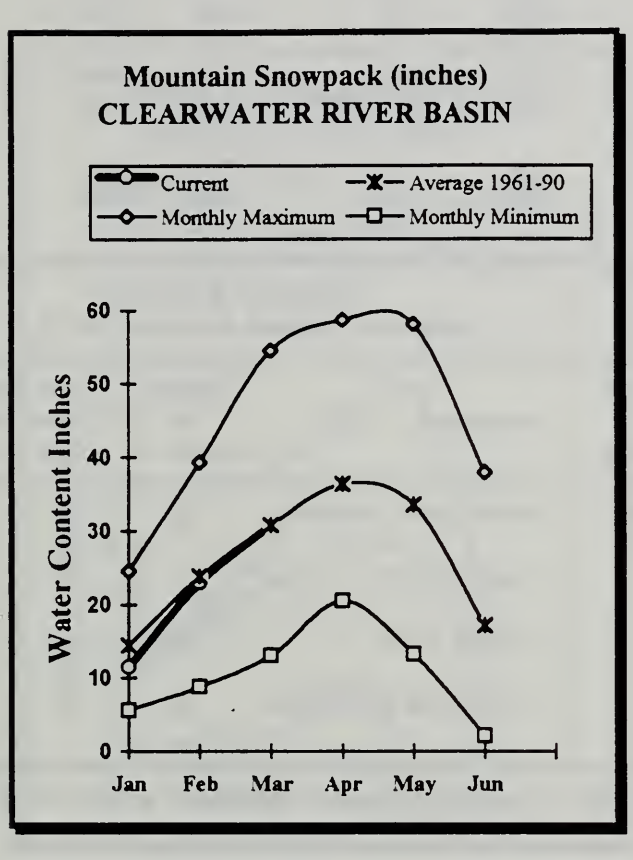
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

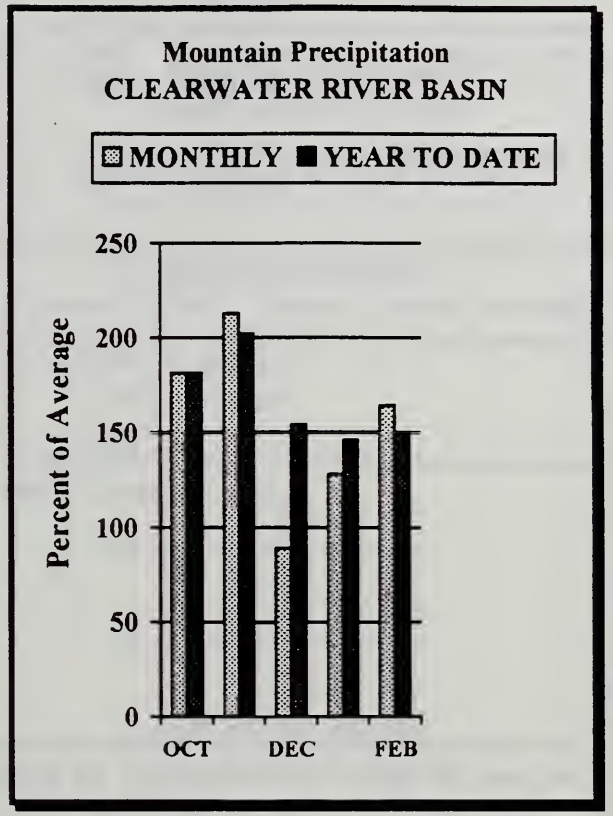
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
MARCH 1, 1996







WATER SUPPLY OUTLOOK

After a period of sub-zero temperatures, a dramatic warming trend combined with heavy rain to produce flooding and numerous mudslides in the Clearwater basin. February precipitation was 164% of average, bringing the water year total to 150% -- the highest in the state. In spite of the warm temperatures and rain received in February, snowpack is still 102% of average in the basin. Due to the high flows in February, storage in Dworshak reservoir is well above normal for this time of year at 87% of capacity, and is currently being drafted for flood control. Streamflow forecasts call for 112% of average for Dworshak Reservoir Inflow and 113% for the Clearwater at Spalding. The potential for high flows still exists when snowmelt runoff begins. Residents should monitor the streams closely if additional precipitation or warm temperatures arrive.

CLEARWATER RIVER BASIN
Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK RESV INFLOW (2)	APR-JUL	2154	2912	3100	115	3288	4011	2692
	APR-SEP	2720	3012	3210	112	3408	3700	2866
CLEARWATER at Orofino (1)	APR-JUL	3612	4683	5170	110	5657	6728	4718
	APR-SEP	3856	4986	5500	111	6014	7144	4976
CLEARWATER at Spalding (1,2)	APR-JUL	6057	7710	8460	111	9210	10863	7618
	APR-SEP	6516	8266	9060	113	9854	11604	8052

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3459.0	3018.6	2586.9	2084.1

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - March 1, 1996

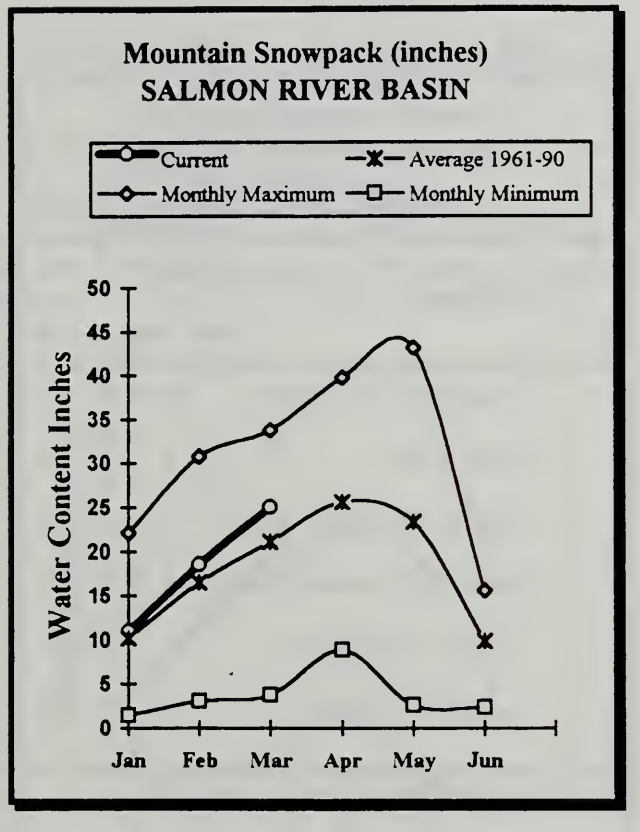
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	11	122	98
Lochsa River	4	143	111
Selway River	6	150	113
Clearwater Basin Total	20	131	102

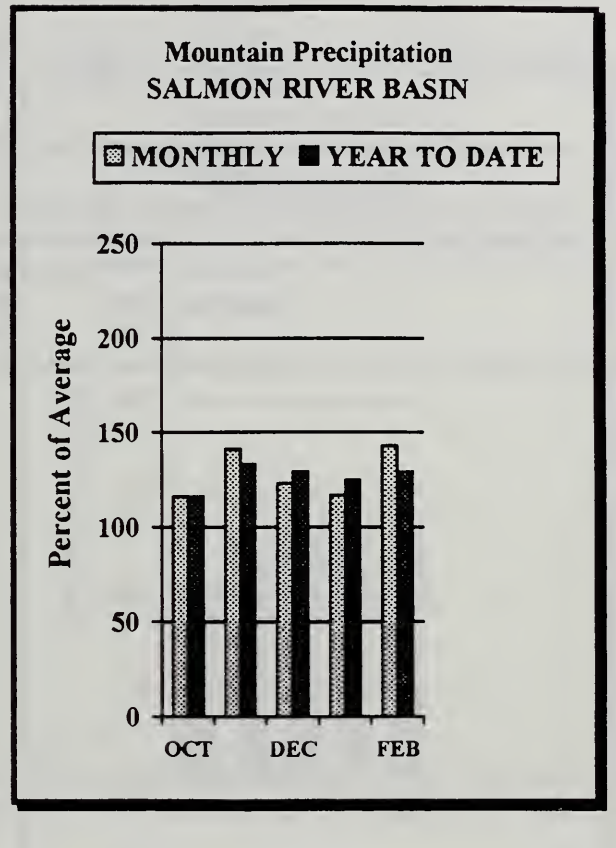
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN
MARCH 1, 1996





WATER SUPPLY OUTLOOK

The Salmon basin reported yet another month of heavy snowfall. Mountain precipitation was 143% of average during February, bringing the water year total to 129% of normal. Snowpacks currently range from 123% of average for the Salmon above Salmon to 103% for the Little Salmon. Current streamflow forecasts call for 118% of average for the Salmon River at Salmon and 118% of average for the Salmon River at White Bird. Water supplies will be plentiful throughout the basin this year. River runners can expect an extended boating season with the potential for high streamflow peaks as a result of the deep mountain snowpacks.

SALMON RIVER BASIN

Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR-JUL	689	923	1030	119	1137	1371	869
	APR-SEP	800	1075	1200	118	1325	1600	1019
SALMON at White Bird (1)	APR-JUL	5270	6480	7030	118	7580	8790	5956
	APR-SEP	5840	7181	7790	118	8399	9740	6602

SALMON RIVER BASIN

Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN

Watershed Snowpack Analysis - March 1, 1996

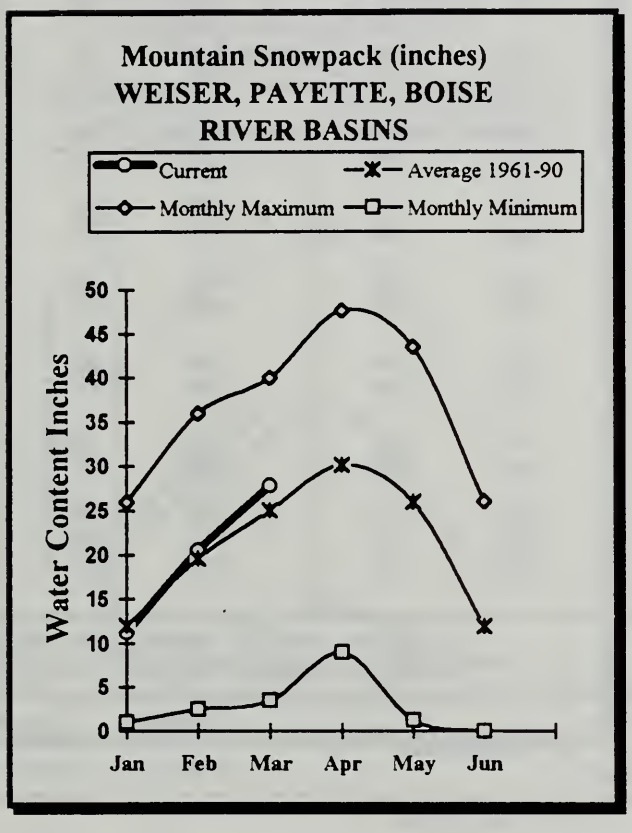
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	10	126	123
Lemhi River	9	116	118
Middle Fork Salmon River	3	124	120
South Fork Salmon River	3	125	116
Little Salmon River	4	101	103
Salmon Basin Total	29	122	118

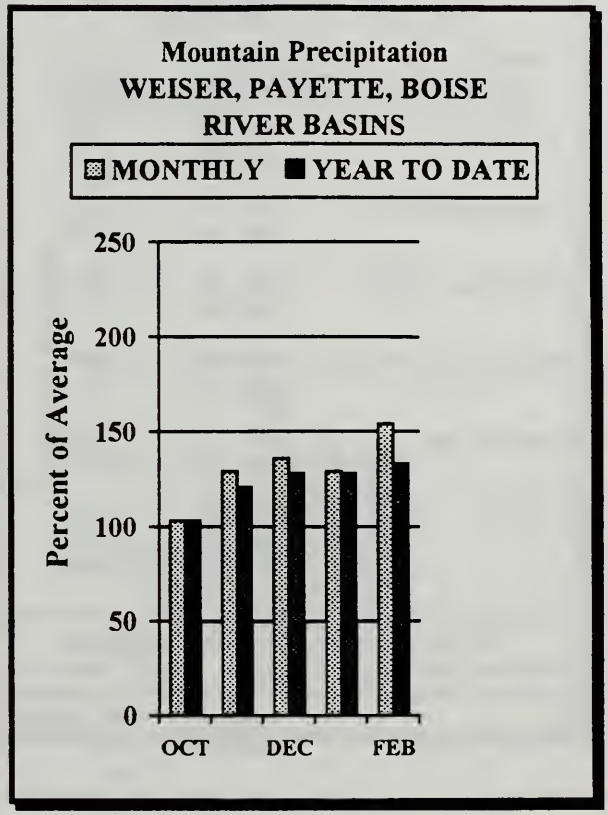
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS
MARCH 1, 1996





WATER SUPPLY OUTLOOK

Rain added moisture to the higher elevation snowpacks in the west central mountains during February while melting much of the snowpack below 4000 feet. The strong correlation between snowpack and elevation established earlier this year still persists: Graham Guard Station SNOTEL site, elevation 5,690 feet, is 73% of average while Vienna Mine, elevation 8,960 feet, is 131%. Overall, the snowpack is 101% of average in the Boise basin, a little better than last year at this time. The snowpack in the Payette basin is 105%. Reservoir storage is currently 67% of capacity for the Boise system and 78% of capacity for the Payette system. Both reservoir systems are storing above average volumes for this time of year. Streamflow forecasts call for 131% of average for the Boise River near Boise and 140% for the Payette River near Horseshoe Bend. Releases for flood control are being made to maintain adequate room in the reservoirs for the anticipated runoff. The Boise River through the City of Boise is currently 6500 cfs -- bankfull conditions -- and will likely remain that way until the runoff season is over. More than adequate water supplies are expected for all water users this year.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-JUL	258	404	470	122	536	682	386
	APR-SEP	278	434	505	122	576	732	415
SF PAYETTE at Lowman	APR-JUL	508	553	584	135	615	660	432
	APR-SEP	568	619	654	134	689	740	488
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	151	174	184	136	194	213	135
	APR-SEP	163	185	195	136	205	227	143
NF PAYETTE nr Cascade (1,2)	APR-JUL	547	645	690	139	735	833	496
	APR-SEP	576	682	730	137	778	884	533
NF PAYETTE nr Banks (2)	APR-JUL	734	827	890	137	953	1046	648
	APR-SEP	773	872	940	136	1008	1107	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	1873	2153	2280	141	2407	2687	1618
	APR-SEP	2016	2321	2460	140	2599	2904	1755
BOISE near Twin Springs (1,2)	APR-JUL	683	777	820	130	863	957	631
	APR-SEP	744	844	890	130	936	1036	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	554	655	700	129	745	846	544
	APR-SEP	594	701	750	129	799	906	582
MORES CK nr Arrowrock Dam	APR-JUL	126	146	160	124	174	194	129
	APR-SEP	131	152	166	124	180	201	134
BOISE nr Boise (1,2)	APR-JUN	1411	1582	1660	131	1738	1909	1264
	APR-JUL	1518	1753	1860	131	1967	2202	1421
	APR-SEP	1646	1896	2010	131	2124	2374	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	8.6	9.4	6.8
CASCADE	703.2	551.0	415.5	393.8
DEADWOOD	161.9	126.9	58.1	84.5
ANDERSON RANCH	464.2	385.0	66.8	282.1
ARROWROCK	286.6	201.8	221.2	234.8
LUCKY PEAK	293.2	117.7	80.4	122.5
LAKE LOWELL (DEER FLAT)	177.1	143.8	57.4	140.6

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - March 1, 1996

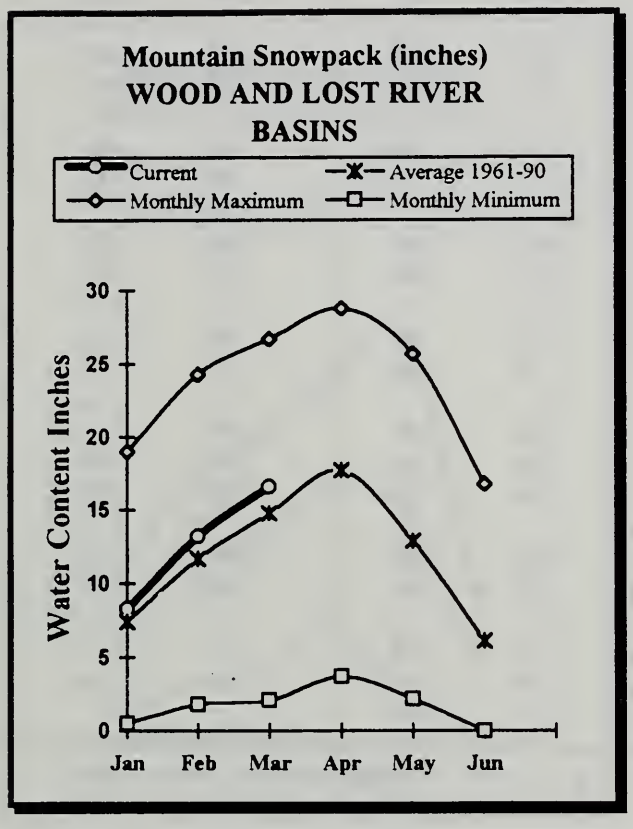
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	2	61	69
Weiser River	5	79	86
North Fork Payette	8	113	108
South Fork Payette	5	110	105
Payette Basin Total	14	110	105
Middle & North Fork Boise	6	110	112
South Fork Boise River	9	112	112
Mores Creek	5	91	81
Boise Basin Total	16	105	101
Canyon Creek	2	95	82

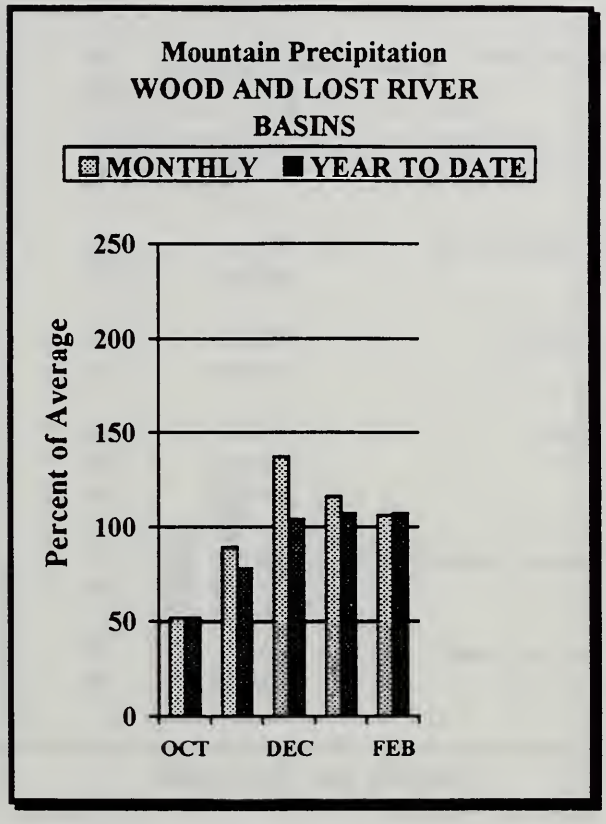
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS
MARCH 1, 1996





WATER SUPPLY OUTLOOK

February precipitation was slightly above normal in the Wood and Lost basins (106% of average), bringing the water year total to 107% of average. Overall, the snowpack is about the same as a month ago, with the Big Wood basin reporting 110% of average and the Big Lost basin reporting 105%. The higher elevations in the Wood and Lost basins report much above average snowpack conditions: Vienna Mine has 38.4 inches of snow water content, the most since 1986. Reservoir storage is above average in Magic, Mackay and Little Wood reservoirs. On March 1, Mackay reservoir was almost full with only 3,000 acre-feet of storage remaining. Streamflow forecasts call for 155,000 acre-feet inflow into Mackay reservoir for the April-July period (103% of average); inflow into Magic is expected to be 100% of average. The Little Wood River is expected to yield 100% of average volumes. Water supplies should be adequate for all users this year in the Wood and Lost river basins. Landowners should be aware of the potential for high flows again this year if springtime temperatures warm dramatically.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD near Hailey (1)	APR-JUL	184	237	263	103	291	356	255
	APR-SEP	173	266	295	102	325	422	289
BIG WOOD near Bellevue	APR-JUL	124	161	189	103	219	267	183
	APR-SEP	138	176	205	104	236	286	197
CAMAS CREEK near Blaine	APR-JUL	57	76	90	88	106	131	102
	APR-SEP	58	77	91	88	107	132	103
BIG WOOD blw Magic Dam (2)	APR-JUL	218	264	295	100	326	372	295
	APR-SEP	230	278	310	100	342	390	310
LITTLE WOOD nr Carey	APR-JUL	61	79	91	99	103	121	92
	APR-SEP	65	86	99	100	112	131	99
BIG LOST at Howell	APR-JUN	104	127	142	101	157	180	141
	APR-JUL	128	161	183	101	205	238	181
	APR-SEP	148	185	210	102	235	272	206
BIG LOST blw Mackay Reservoir (2)	APR-JUL	111	137	155	103	173	199	150
	APR-SEP	137	167	187	103	207	237	182
LITTLE LOST blw Wet Creek	APR-JUL	29	34	37	118	40	44	31
	APR-SEP	36	42	46	117	50	56	39

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	125.5	15.7	102.4
LITTLE WOOD	30.0	22.4	6.1	17.6
MACKAY	44.4	41.5	21.7	32.6

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - March 1, 1996

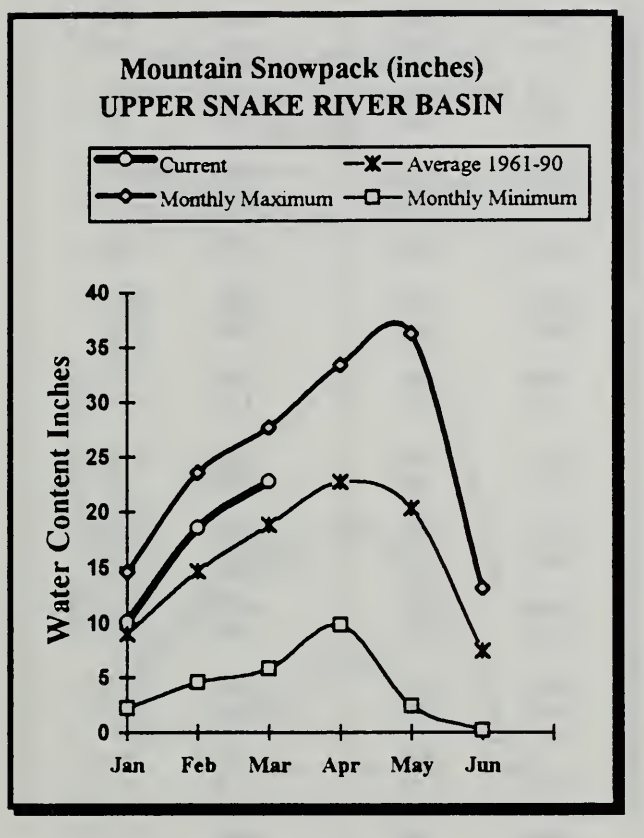
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Big Wood ab Magic	8	106	116
Camas Creek	5	92	94
Big Wood Basin Total	13	102	109
Little Wood River	4	93	106
Fish Creek	3	78	83
Big Lost River	7	98	105
Little Lost River	4	110	112

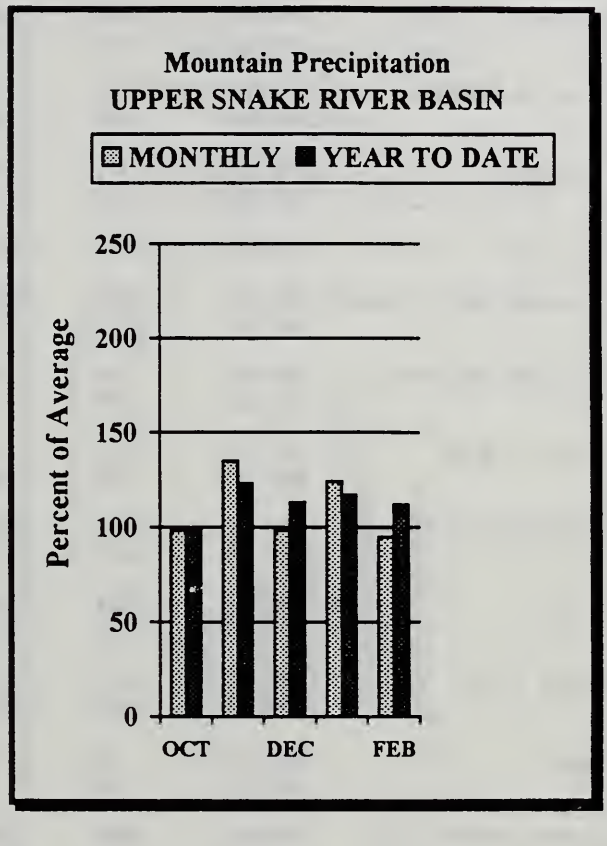
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN
MARCH 1, 1996





WATER SUPPLY OUTLOOK

February precipitation was 95% of average in the Upper Snake Basin, bringing the total for the water year to 112%. The snowpack in the headwaters of the Snake River continues to be the highest in the region at 130% of average. Lewis Lake Divide and Two Ocean Plateau SNOTEL sites in Yellowstone National Park are reporting 142% and 159% of average, respectively. Two Ocean Plateau has 35.2 inches of snow water, a new March 1 record based on 60 years of measurements! Elsewhere in the basin, the Henrys Fork and Teton basins are both reporting 109% of average snowpack. The lower elevation drainages of Willow, Blackfoot, and Portneuf basins are reporting snowpacks in the 95-110% of average range. The combined storage for the eight major reservoirs in the basin is 86% of capacity, 119% of average. Streamflow forecasts for most streams in the basin range from 105-130% of average; the Portneuf is expected to yield 100% of average runoff. Flood control releases are currently being made from Palisades Reservoir to make room for the anticipated runoff. The combination of good carry over storage and deep snowpacks will provide more than adequate water supplies this year.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK nr Ashton (2)	APR-JUL	486	540	577	106	614	668	544
	APR-SEP	653	717	760	104	803	867	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1108	1237	1325	108	1413	1542	1228
	APR-SEP	1419	1562	1660	107	1758	1901	1551
FALLS RIVER nr Squirrel (1,2)	APR-JUL	320	365	385	106	405	450	364
	APR-SEP	381	432	455	105	478	529	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	156	179	195	128	211	234	153
	APR-SEP	209	236	255	128	274	301	199
TETON nr St. Anthony (2)	APR-JUL	341	391	425	113	459	509	375
	APR-SEP	416	472	510	112	548	604	454
SNAKE nr Moran (1,2)	APR-SEP	951	1067	1120	129	1173	1289	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	2563	2793	2950	129	3107	3337	2286
	APR-SEP	2930	3201	3385	128	3569	3840	2647
GREYS R abv Palisades Reservoir	APR-JUL	348	391	420	126	449	492	333
	APR-SEP	399	447	480	124	513	561	388
SALT abv Reservoir nr Etna	APR-JUL	318	376	416	130	456	514	320
	APR-SEP	399	465	510	128	555	621	400
PALISADES RESV INFLOW (1,2)	APR-JUL	3476	3953	4170	129	4387	4864	3225
	APR-SEP	4061	4590	4830	128	5070	5599	3762
SNAKE nr Heise (2)	APR-JUL	3863	4219	4460	129	4701	5057	3451
	APR-SEP	4503	4912	5190	128	5468	5877	4048
SNAKE nr Blackfoot (1,2)	APR-JUL	4512	5315	5680	128	6045	6848	4444
	APR-SEP	5678	6554	6951	127	7348	8224	5482
PORTNEUF at Topaz	MAR-JUL	69	79	86	100	92	102	86
	MAR-SEP	85	97	105	98	113	125	107
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	2790	3574	3970	130	4366	5151	3066
	APR-SEP	2807	3806	4260	129	4714	5713	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	85.2	76.9	79.4
ISLAND PARK	135.2	118.0	93.7	110.1
GRASSY LAKE	15.2	13.3	12.5	11.0
JACKSON LAKE	847.0	674.1	401.6	481.0
PALISADES	1400.0	1188.4	515.9	1063.1
RIRIE	80.5	46.5	25.0	41.7
BLACKFOOT	348.7	230.3	114.8	242.1
AMERICAN FALLS	1672.6	1582.4	1290.1	1277.2

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - March 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Camas-Beaver Creeks	4	57	74
Henrys Fork River	12	89	109
Teton River	8	107	109
Snake above Jackson Lake	13	132	131
Gros Ventre River	2	145	126
Hoback River	6	170	126
Greys River	5	151	128
Salt River	5	139	124
Snake above Palisades	31	142	130
Willow Creek	7	104	97
Blackfoot River	5	137	109
Portneuf River	6	132	111
Snake abv American Falls	46	137	123

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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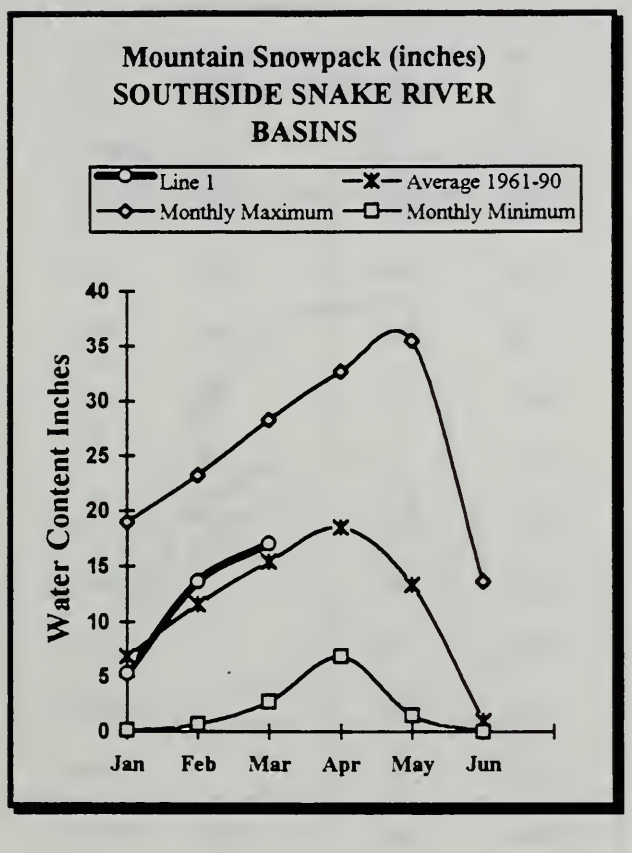
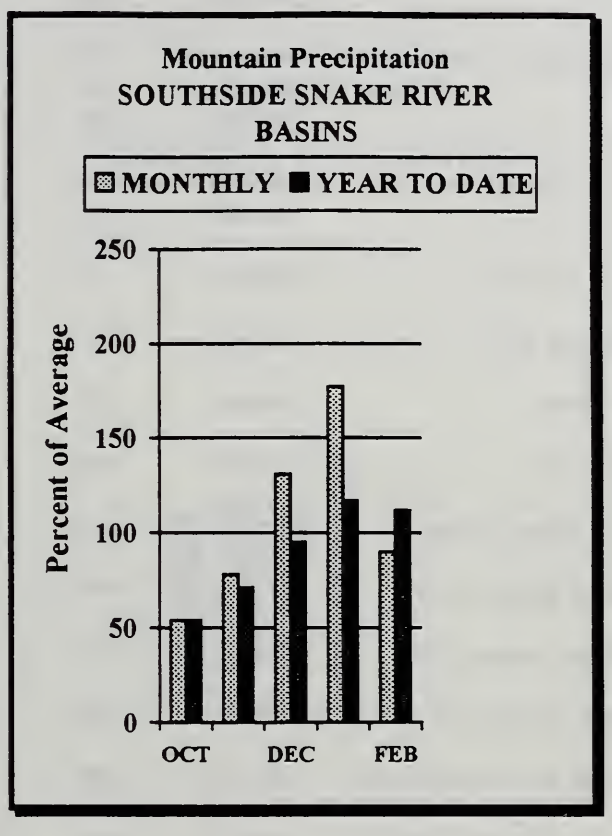
SOUTHSIDE SNAKE RIVER BASINS MARCH 1, 1996





WATER SUPPLY OUTLOOK

Rain and warm temperatures melted some of the lower elevation snowpack, but the higher elevation snowpack is still above average. February precipitation was 90% of normal south of the Snake, bringing the water year total to 112% of average. Currently, snowpacks are above average (110-118%) in all the southside watersheds. Reservoir storage is near or above average in all reservoirs; Salmon Falls Reservoir has more than twice the carryover than this time last year. Streamflow forecasts look promising and range from 118% of average for the Bruneau to 98% for Oakley Reservoir Inflow. Water supplies should be adequate for all water users this year. Whitewater opportunities look promising in the Bruneau, Jarbidge and Owyhee rivers. Streamflows through the middle Snake River will be plentiful this spring and summer as a result of flood control releases and abundant snowpack.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESERVOIR Inflow (2)	MAR-JUL	21	28	33	98	39	46	34
	MAR-SEP	23	31	36	97	41	50	37
SALMON FALLS CREEK nr San Jacinto	MAR-JUN	57	73	86	99	99	120	86
	MAR-JUL	60	77	91	99	105	128	92
	MAR-SEP	64	82	95	99	110	133	96
BRUNEAU nr Hot Spring	MAR-JUL	204	247	277	118	307	350	235
	MAR-SEP	217	263	295	120	327	373	246
OWYHEE nr Gold Ck (2)	MAR-JUL	20	29	34	100	40	48	34
OWYHEE nr Owyhee (2)	APR-JUL	43	68	84	98	101	125	86
OWYHEE near Rome	MAR-JUL	435	531	601	110	676	794	545
OWYHEE RESV INFLOW	APR-SEP	308	411	490	117	576	714	418
SUCCOR CK nr Jordan Valley	MAR-JUL	4.9	10.7	14.7	103	18.7	25	14.3
SNAKE RIVER at King Hill (2)	APR-JUL	1506		2550	88		3591	2896
SNAKE RIVER near Murphy (2)	APR-JUL	1579		2700	91		3814	2980
SNAKE RIVER at Weiser (2)	APR-JUL	3826		6210	114		8635	5465
SNAKE RIVER at Hells Canyon Dam	APR-JUL	4352		6780	111		9255	6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	16330	21329	23600	109	25871	30870	21650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	77.4	28.0	14.8	29.9
SALMON FALLS	182.6	58.6	25.2	53.9
WILDHORSE RESERVOIR	71.5	40.7	20.7	33.0
OWYHEE	715.0	594.2	343.1	512.0
BROWNLEE	1419.3	1345.5	1185.0	975.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - March 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	6	139	112
Goose-Trapper Creeks	6	142	112
Salmon Falls Creek	6	130	110
Bruneau River	8	131	118
Owyhee Basin Total	20	130	114

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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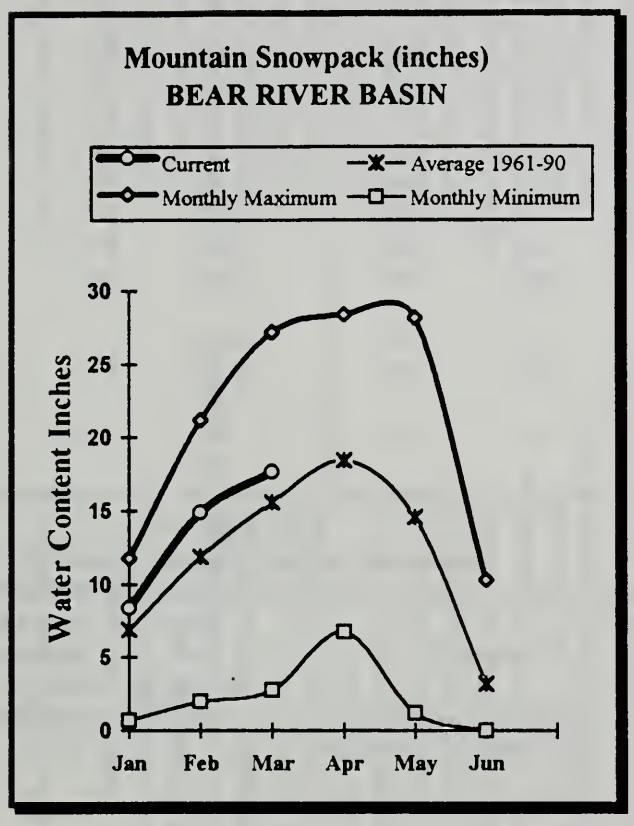
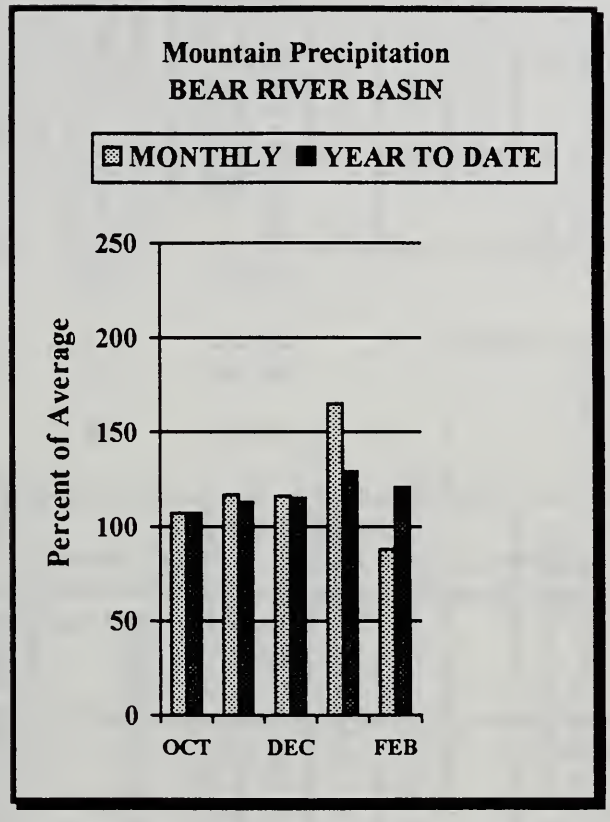
BEAR RIVER BASIN
MARCH 1, 1996





WATER SUPPLY OUTLOOK

February precipitation was slightly below average in the Bear River basin, bringing the total to 121% for the water year to date. Snowpacks in the Bear River basin decreased slightly from the high values reported last month. The Bear River basin above the Idaho Wyoming line reports 130% of normal snowpack; Montpelier Creek reports a snowpack of 124% of average. Montpelier Creek Reservoir is currently reporting 80% of capacity. Bear Lake is only 43% of capacity, but has almost twice the storage as last year at this time. Streamflow forecasts range from 95% of average for Montpelier Creek to 123% of average for the Smiths Fork. The Bear River below Stewart Dam is expected to yield 108% of normal runoff. The Surface Water Supply Index (SWSI) for the Bear River basin remains low (-2.5) as a result of low lake levels. However, this year's above average runoff should provide adequate water supplies and should also help increase storage in Bear Lake.

BEAR RIVER BASIN

Streamflow Forecasts - March 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	APR-JUL	69	110	138	117	166	207	118
	APR-SEP	70	117	148	117	179	226	127
SMITHS FORK nr Border, WY	APR-JUL	99	114	125	123	136	151	102
	APR-SEP	115	133	145	123	157	175	118
THOMAS FK nr WY-ID State Line	APR-JUL	21	29	36	109	45	61	33
	APR-SEP	23	32	39	108	48	65	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	206	268	310	108	352	414	288
	APR-SEP	238	308	355	109	402	472	327
MONTPELIER CK nr Montpelier (2)	APR-JUL	7.8	9.9	11.6	95	13.6	17.2	12.2
	APR-SEP	9.4	11.6	13.5	95	15.7	19.4	14.2
CUB R nr Preston	APR-JUL	36	43	47	100	52	58	47

BEAR RIVER BASIN

Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
WOODRUFF NARROWS	57.3	45.0	14.0	---
WOODRUFF CREEK	4.0	4.0	2.6	---
BEAR LAKE	1421.0	616.6	336.3	992.5
MONTPELIER CREEK	4.0	3.2	1.0	1.6

BEAR RIVER BASIN

Watershed Snowpack Analysis - March 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	137	122
Bear River ab WY-ID line	10	146	130
Montpelier Creek	2	140	124
Mink Creek	4	117	108
Cub River	3	127	121
Bear River ab ID-UT line	22	135	122
Malad River	3	132	105

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)
CLARK FORK R AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)
PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)
PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)
COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
ST. JOE R AT CALDER, ID - No Corrections
SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
SPOKANE R AT LONG LAKE, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections
DWORSHAK RESERVOIR INFLOW, ID
+ CLEARWATER R NR PECK, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID
CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections
SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections
SF PAYETTE R AT LOWMAN, ID - No Corrections
DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)
NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)
NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)
PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)
BOISE R NR TWIN SPRINGS, ID - No Corrections
SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
MORES CK NR ARROWROCK DAM, ID - No Corrections
BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections
BIG WOOD R NR BELLEVUE, ID - No Corrections
CAMAS CK NR BLAINE, ID - No Corrections
BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)
LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)
BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections
BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)
LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)
FALLS R NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)
TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections
TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE
SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)
PACIFIC CK AT MORAN, WY - No Corrections
SNAKE R ABV PALISADES RESV NR ALPINE, WY
+ JACKSON LAKE (STORAGE CHANGE)
GREYS R ABV PALISADES RESV, WY - No Corrections
SALT R ABV RESV NR ETNA, WY - No Corrections
PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR HEISE, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE R AT NEELEY, ID
+ AMERICAN FALLS (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
- + GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
- + TRAPPER CK NR OAKLEY, ID

SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
- + WILDHORSE RESV (STORAGE CHANGE)

OWYHEE R NR ROME, OR
- + WILDHORSE RESV (STORAGE CHANGE)
- + JORDAN VALLEY RESV (STORAGE CHANGE)

OWYHEE RESERVOIR INFLOW, OR
- + OWYHEE R BLW OWYHEE DAM, OR
- + OWYHEE RESV (STORAGE CHANGE)
- + DIV TO NORTH AND SOUTH CANALS

SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
- + BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
- + SULPHUR CK RESV (STORAGE CHANGE)
- + CHAPMAN CANAL DIVERSION
- + WOODRUFF NARROWS RESV (STORAGE CHANGE)

SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R BLW STEWART DAM, ID
- + SULPHUR CK RESV (STORAGE CHANGE)
- + CHAPMAN CANAL DIVERSION
- + WOODRUFF NARROWS RESV (STORAGE CHANGE)
- + TOTAL OF 12 CANALS
- + WESTFORK CANAL
- + DINGLE INLET CANAL
- + RAINBOW INLET CANAL

MONTPELIER CK NR MONTPELIER, ID
- + MONTPELIER CK RESV (STORAGE CHANGE)

CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	40€ 20	112.40	1042.70	--	1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD + INACTIVE + ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2007.00	--	3459.0	INACTIVE + ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE + ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10	--	169.1	ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE + ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD + ACTIVE

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflows are for streamflow volumes that would occur naturally without any upstream influences Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast: it means that they need to evaluate existing cirumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River newa Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they detrmine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that tive out of every ten years with similar conditions would produce streamflow volumes greater that 36,000 acre-feet was more than they would like to risk, they might plan on receiveing 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

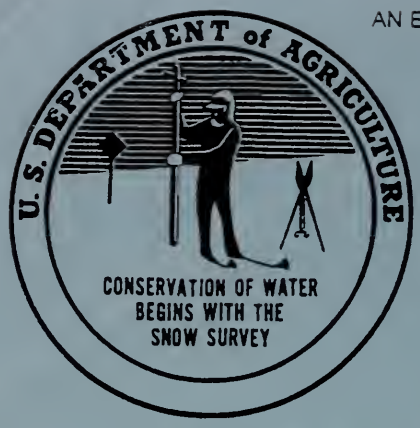
UPPER HUMBOLDT RIVER BASIN

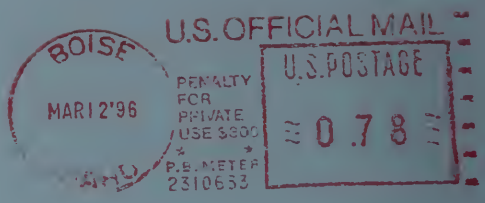
STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	<--DRIER-- FUTURE CONDITIONS --WETTER--> Chance of Exceeding 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)
MARY'S RIVER	MAR-JUL	5.0	20.0	36	77	52	76	47
nr Deeth	APR-JUL	8.0	17.0	31	74	45	67	42
LAMOILLE CREEK	MAR-JUL	6.0	16.0	24	79	32	43	31
nr Lamoille	APR-JUL	4.0	15.0	22	75	30	41	30
NR HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".

AN EQUAL OPPORTUNITY EMPLOYER





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